9.0 AESTHETIC RESOURCES

This section explains the aesthetic resources of Lake Davis and how the chemical treatment and reservoir drawdown and refill affect public views of the reservoir and Big Grizzly Creek.

9.1 Environmental Setting/Affected Environment

The project area is located on the eastern slopes of the northern Sierra Nevada in southeastern Plumas County and is approximately five miles north of the City of Portola. The majority of the project area is located on lands owned and managed by the Plumas National Forest (PNF). Approximately 5.5 miles of Big Grizzly Creek downstream of Lake Davis is located on lands outside of PNF and in the jurisdiction of Plumas County (County) and the Smith Peak State Game Refuge managed by the California Department of Fish and Game (DFG). State Route 70, which connects U.S. Interstate 395 to U.S. Interstate 5 generally paralleling the Middle Fork Feather River, is designated by the PNF as a scenic byway. Access to the project area from the City of Portola is via County Road 126 (Lake Davis Road) north and County Road 112 (Primary Forest Route 175 or AKA Beckwourth Taylorsville Road) north. County Road 112 provides access to the east and north shores of Lake Davis and intersects with State Route 70 near the Middle Fork Feather River. The west shore of Lake Davis is accessed via Primary Forest Route 24N10.

9.1.1 Aesthetics of Project Area and Vicinity

9.1.1.1 Middle Fork Feather River, Big Grizzly Creek Watershed, Lake Davis and Tributaries

Crocker Mountain is located to the east of Lake Davis and Grizzly Ridge is located to the west. Lake Davis is fed by five main tributaries primarily to the west including Big Grizzly Creek, Freeman Creek, Cow Creek, Jenkins Creek, and Dan Blough Creek. Grizzly Valley Dam is located at the southeast end of the lake at an elevation of 5,672 feet.

Big Grizzly Creek upstream of Lake Davis is fed by numerous creeks and streams and is relatively moderate in grade. Immediately downstream of Lake Davis, Big Grizzly Creek follows a steep, narrow canyon for approximately 2.6 miles. Big Grizzly Creek canyon widens near the Grizzly Ice Pond. Downstream of Grizzly Ice Pond, the creek splits into several channels and opens to a broad floodplain before converging with the Middle Fork Feather River.

Plumas County General Plan designates that features of Big Grizzly Creek visible from State Route 70 are visually important to maintain the area's rural character (Plumas County 2004). These visual features include the floodplain visible from State Route 70, agricultural practices that take place on the floodplain, and expansive views of Sierra Valley uninterrupted by structures.

County Road 112 provides access (from State Route 70) to the east shore of Lake Davis and continues to Walker Mine and Genesee Valley to the northwest. County Road 126 connects State Route 70 to Forest Route 24N10, which provides access to the west shore of Lake Davis, and across Grizzly Valley Dam. Plumas County designates County Roads 112 and 126 as scenic roadways.

PNF lands in the project area are located in a northwest trending upland valley in the Big Grizzly Creek drainage basin and are connected to the upper portions of the Middle Fork Feather River basin. The following description of project area aesthetics on PNF lands include terms defined in Section 9.2.1. The project area consists of moderately undulating landscapes covered by sagebrush and scattered pine along the shores of Lake Davis, lodgepole pines along the tributaries, and a canopy of ponderosa pine and fir on steeper slopes. Dense stands of lodgepole pine surround wet stringer meadows and extend along the major tributary streams on the west side of the reservoir (USFS 1988). The Smith Peak Lookout is an operating fire lookout and is open to public visits. This unique facility is located at a base elevation of 7,688 feet and has a 25-foot viewing platform providing a panoramic view of Lake Davis and the surrounding landscape.

The project area is managed by the PNF for recreation year round with developed recreation facilities such as campgrounds, boat launches, fishing access, and restrooms around Lake Davis. Winter activities include snowmobiling, ice fishing, and cross-country skiing. Spring/summer/fall activities include camping, picnicking, fishing, hunting, boating, mountain biking, swimming, and wildlife viewing. Section 11.0, Recreation Resources, describes these activities in greater detail. During the winter months, Lake Davis is frozen and covered with snow. Scenic attractiveness generally falls into Class B – Typical. The landform, vegetation patterns, and water characteristics are common to those of upland valleys in the vicinity. Dense tree canopies around the reservoir as well as the reservoir itself provide attributes of harmony, order, and balance. County roads 126 (crosses over Grizzly Valley Dam) and 112 (along the east shore of Lake Davis) are travel ways that concentrate public-viewing opportunities. Information panels at Grizzly Valley Dam on County Road 126 and parts of County Road 112 are close to the shoreline. Smith Peak Lookout provides for further visitor viewing opportunities. Scenic integrity in the project area landscape ranges from high to moderate, depending on location. Deviations from the landscape are less noticeable from a distance where vegetation density screens views of recreation facilities and roadways around the reservoir.

9.1.2 Regulatory Environment

The U.S. Forest Service (USFS) developed the Scenic Management System (SMS) to provide a mechanism for inventory and analysis of landscape resources and the effects of land management activities on those resources. This system entails identifying landscape character, visual sensitivity, and scenic integrity.

According to the PNF Land and Resource Management Plan (LRMP), Lake Davis and most of the surrounding land area in the project area has a Visual Quality Objective (VQO) of Retention (as shown on Figure 9-1, Visual Quality Objectives). Retention implies that any proposed project would retain most or all features of the characteristic landscape. Portions of tributaries to the north and east of Lake Davis have a VQO of Partial Retention. Partial Retention allows for a higher degree of alteration than Retention, while still retaining many features of the characteristic landscape. The western and northern portions of the project area have a VQO of Modification, which allows for alteration of features of the characteristic landscape.

Figure 9-1 Visual Quality Objectives in the Project Area

Figure 9-1 BACK

State Route 70 from its intersection with State Route 191 approximately eight miles north of Oroville, California, to its intersection with Interstate 395 approximately 25 miles north of Reno, Nevada, was designated as the Feather River Scenic Byway by the PNF in 1990. The designation recognizes the scenic beauty of the landscapes traversed by the roadway and the wide range of natural and cultural experiences in the vicinity that travelers can experience. The PNF prepared the Feather River Scenic Byway Implementation Strategy (Strategy) in 1996. The Strategy described existing conditions, desired future conditions, implementation strategy, and partnerships. The overall goal of the Strategy document is to create partnerships with other management agencies and seek opportunities to encourage public use and enjoyment of the resource.

The DFG does not maintain specific regulations to manage aesthetic resources.

The County maintains land development standards to protect scenic resources such as scenic destinations, natural areas, and scenic roads/highways. Approximately 5.5 miles of Big Grizzly Creek, downstream of Lake Davis to its confluence with the Middle Fork Feather River, is within the jurisdiction of Plumas County. The County's General Plan designates features of Big Grizzly Creek visible from State Route 70 as visually important to maintain the area's rural character (Plumas County 2004).

9.2 Environmental Impacts and Consequences

9.2.1 Evaluation Criteria and Environmental Concerns

The primary environmental concerns are the appearance of a band of bare shoreline from reservoir drawdown and the color change in Big Grizzly Creek associated with some of the potential rotenone neutralization options.

In addition to these concerns, the CEQA environmental checklist in Appendix G of the CEQA Guidelines identifies other potential aesthetics effects. As is explained below, the third potential effect was analyzed; the others were not for the reasons stated.

- **Have a substantial adverse effect on a scenic vista.** The project effects would be visible from foreground and middleground distances of the reservoir only. Surrounding scenic vistas, such as views of Grizzly Ridge, would not be affected.
- **Substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway.** The project effects would not be observable from a state scenic highway. Nor would the project damage trees, rock outcrops, or historic buildings. Therefore, the project would not substantially damage scenic resources.
- **Substantially degrade the existing visual character or quality of the site and its surroundings.** The project has the potential to substantially degrade the existing visual character or quality of the site and its surroundings. This potential effect was evaluated using the duration of reservoir drawdown and the amount of exposed shoreline associated with the project and each action alternative.
- **Create a new source of substantial light or glare, which adversely affect day or nighttime views in the area.** The project would not create a new source of substantial light or glare.

PNF utilizes the SMS to evaluate impacts to visual resources on USFS lands. The SMS uses descriptors of scenic attributes of the region being analyzed. These descriptors include landscape character, visual sensitivity, scenic attractiveness, landscape visibility, and scenic integrity. These are described as follows:

9.2.1.1 Landscape Character

Landscape character gives a geographic area its visual and cultural image period, it consists of the combination of physical, biological, and cultural attributes that make each landscape identifiable or unique. Landscape character embodies distinct landscape attributes that exist throughout an area.

9.2.1.2 Visual Sensitivity

Visual sensitivity of landscapes is based on the context of the landscape being viewed, as well as viewer attitudes toward the maintenance of landscape aesthetics. Under the SMS, sensitivity is evaluated through scenic attractiveness, landscape visibility, and scenic integrity.

9.2.1.3 Scenic Attractiveness

Scenic attractiveness is the primary gage for a landscape's variety. It is one of the major indicators of a landscapes' scenic integrity, which is used to evaluate significance of impacts. Designations are based on the uniqueness of a landscape's landform, vegetation patterns, water characteristics, and cultural features. Other considerations include variety, unity, vividness, mystery, intactness, order, harmony, uniqueness, pattern, and balance. Landscapes are classified into Classes A, B, and C, which are described below.

Class A – Distinctive

This class includes areas where landform, vegetation patterns, water characteristics, and cultural features combine to provide unusual, unique, or outstanding scenic quality. Other attributes include variety, unity, vividness, mystery, intactness, order, harmony, and balance.

Class B – Typical

This class includes areas where landform, vegetation patterns, water characteristics, and cultural features combine to provide ordinary or common scenic quality. Other positive, yet common attributes include variety, unity, vividness, mystery, intactness, order, harmony, uniqueness, and balance.

Class C – Indistinctive

This class includes areas where landform, vegetation patterns, water characteristics, and cultural land uses have low scenic quality. Attributes such as variety, unity, vividness, mystery, intactness, order, harmony, uniqueness, and balance are weak or missing. Often water and rock forms of any consequence are missing.

9.2.1.4 Landscape Visibility

Landscape visibility incorporates elements that influence the relative importance and sensitivity of landscapes, such as travel ways and use areas, concern levels, and distance zones. These elements are described as follows:

- Travel ways are linear concentrations of public-viewing, and use areas are places that receive concentrated public-viewing;
- Concern levels 1, 2, and 3, from greatest to lowest; represent the public's interest in scenery, the regional or national importance of locations, and the use of the location; and
- Distance zones incorporate the degree of discernible detail of a landscape and include three zones: immediate foreground (0 to 300 feet to 0.5 mile); middleground (0.5 mile to 4 miles); and background (4 miles to horizon). Impacts are greatest when viewed in the immediate foreground, followed by the middleground, and then the background.

9.2.1.5 Scenic Integrity

Scenic integrity indicates the degree of intactness and wholeness of the landscape character. Scenic integrity levels in the SMS range from very high to unacceptably low. The integrity levels are defined as follows:

Very High

Very high scenic integrity refers to landscapes where the valued landscape character "is" intact with only minute, if any, deviation. The existing landscape, character, and sense of place are expressed at the highest possible level.

High

High scenic integrity refers to the landscapes where the valued landscape character "appears" intact. Deviations may be present but must mimic the form, line, color, texture, and pattern common to the landscape character so completely and at such a scale that they are not evident.

Moderate

Moderate scenic integrity refers to landscapes where the valued landscape character "appears slightly altered." Noticeable deviations must remain visually subordinate to the landscape character being viewed.

Low

Low scenic integrity refers to landscapes where the valued landscape character "appears moderately altered." Deviations begin to dominate the valued landscape character being viewed, but they borrow valued attributes such as size, shape, edge effect, and pattern of natural openings, vegetative type changes, or architectural styles outside the landscape being viewed.

Very Low

Very Low scenic integrity refers to landscapes where the valued landscape character "appears heavily altered." Deviations may strongly dominate the valued landscape character. They may not borrow from the form, line, texture, pattern, or scale of the landscape being viewed. However, for Proposed Project deviations must be shaped and blended with the natural terrain, so that elements do not dominate the composition. When implemented correctly, the SMS avoids significant visual impacts, through use of appropriate design elements.

Unacceptably Low

Unacceptably Low scenic integrity refers to landscapes where the valued landscape character viewed "appears extremely altered." Deviations are extremely dominant and borrow little if any from the form, line, texture, pattern, or scale from the landscape character.

9.2.1.6 Evaluation Criteria

Significant impacts were determined by evaluating project effects on meeting USFS VQOs. For USFS VQOs, impacts were considered significant if project actions failed to meet VQOs for more than two years.

9.2.1.7 Key Observation Points

A total of five Key Observation Point (KOP) sites were selected to depict existing aesthetic conditions of the project area (Figure 9-2). These locations were selected because they are located at or near recreation facilities and they provide representative views around the reservoir shore. Photos from these KOPs were taken on June 6, 2006. On June 6, 2006, Lake Davis had 69,743 acre-feet of storage and the water surface elevation was at 5,771.18 feet.

- KOP 1 is located at the Grizzly Valley Dam;
- KOP 2 is located at Honker Cove;
- KOP 3 is located along the Beckwourth Taylorsville Road (County Road 112) north of Mallard Cove;
- KOP 4 is located at Fairview Point; and
- KOP 5 is located at Old Camp 5.

Figure 9-2 Key Observation Points

Figure 9-2 BACK

KOP 1

The Grizzly Valley Dam is located at the southeast shore of Lake Davis. County Road 126 crosses over the Grizzly Valley Dam. There is a turnout just west of the dam where several information kiosks are located. The only developed recreation facilities located at the dam are restrooms and information kiosks. Figure 9-3 presents a view of Lake Davis from the Grizzly Valley Dam looking northwest. From this view, the length of Lake Davis is visible including the portion of Turner Ridge in the vicinity of Bagley Pass.

Figure 9-3 KOP 1 View of Lake Davis from Grizzly Valley Dam Looking Northwest

KOP 2

Honker Cove is located on the south east shore of Lake Davis and has a boat ramp and restroom facilities. Honker Cover is accessed via the Beckwourth Taylorsville Road (County Road 112). Figure 9-4 presents a view of Lake Davis from Honker Cove looking west. The reservoir and boat ramp are visible in the foreground. The view at a distance is the west shore of the reservoir in the vicinity of Dan Blough Cove and the mountains north of Smith Peak.

Figure 9-4 KOP 2 View of Lake Davis from Honker Cove Looking West

KOP 3

This KOP is located along the Beckwourth Taylorsville Road (County Road 112) north of Mallard Cove. There are no developed recreation facilities nor turnouts at this location. This road's proximity to the shoreline provides views of the reservoir in the foreground and surrounding mountains in the background. Figure 9-5 presents a view of Lake Davis from the Beckwourth Taylorsville Road (County Road 112) looking southwest. The shore along this roadway has many small trees that screen most views of the opposite shore. Most views are very brief as motorists are passing through the area. In the photo, the peaks near Smith Peak are visible in the background.

Figure 9-5 KOP 3 View of Lake Davis from Beckwourth Taylorsville Road (County Road 112) Looking Southwest

KOP 4

This KOP is located at Fairview Point, which offers fishing access along the northeast shore of Lake Davis. Figure 9-6 presents a view of the reservoir from Fairview Point looking southwest. Generally, this view is of the area near Cow Creek with Smith Peak at a distance. Figure 9-7 presents a view of the reservoir from Fairview Point looking northwest. This photo depicts the northern shore of Lake Davis in the foreground and Turner Ridge to the northwest in the background.

Figure 9-6 KOP 4 View of Lake Davis from Fairview Point Looking Southwest

Figure 9-7 KOP 4 View of Lake Davis from Fairview Point Looking Northwest

KOP 5

Old Camp 5 is located on the west shore of Lake Davis and provides universally accessible fishing facilities, restrooms, and boat launch. It is reached via Forest Route 24N10. Figure 9-8 presents a view of the reservoir from Old Camp 5 looking northwest. In this view, Jenkins Point is visible with peaks of Turner Ridge visible in the background and there is some exposed shoreline in the foreground. Figure 9-9 presents a view of the reservoir from Old Camp 5 looking southeast. The east and south shore of the reservoir and Crocker Mountain is visible in this photo.

Figure 9-8 KOP 5 View of Lake Davis from Old Camp 5 Looking Northwest

Figure 9-9 KOP 5 View of Lake Davis from Old Camp 5 Looking Southeast

9.2.2 Evaluation Methods and Assumptions

Aesthetic assessment on PNF lands is a qualitative evaluation of views as presented in the KOPs compared with the VQO for the lands surrounding the facilities. Visual assessment is discussed in terms of the variety class, sensitivity level, and distance zones of the landscape surrounding and present at the KOPs. The degree to which the project alternatives would result in deviations from scenic integrity objectives was evaluated using exposed reservoir bed shoreline as an indicator. Views of exposed reservoir bed would be from relatively short (foreground) and middleground distances.

VQOs were established at the preparation of the LRMP as goals for the management of aesthetic resources on PNF lands. Since the preparation of the LRMP in 1988, management of PNF lands may have changed, and, lands are now different from the VQOs. In other words, the VQOs do not necessarily represent the visual baseline for this pike eradication project, but do serve as a guide for the management goals for the area. For example, some of the developed recreation facilities may not have been present when the VQOs were established. They are deviations that dominate visually in the foreground and currently are not consistent with the Retention VQO.

Once drawdown commences for the Proposed Project/project alternatives, the difference between typical water surface elevations for the reservoir and that associated with the Proposed Project or alternatives would become more marked over time until the associated storage volume is reached.

Assumptions used to conduct the impact evaluation included the following:

- Reservoir bed exposure is highest in the late summer just prior to rotenone application;
- Drawdown effects evident to recreationists occur for up to eight months;
- Dead fish removal would occur during the time period when the Forest Closure Order prohibits public access to the Lake Davis Recreation Area;
- Neutralization treatments would occur when the Forest Closure Order prohibits public access to the Lake Davis Recreation Area; and
- Two scenarios for refill are reported. The slower refill scenario is based on the time required for refill for 75 percent of the 38 water years of record.

Lowering of water surface elevations of Lake Davis is the primary aesthetic related physical change of the project. Lowering the reservoir water surface elevation would result in a visible band of exposed shoreline around the reservoir shore that could be seen from the KOPs. Figure 1-1 in Section 1.3 depicts the different reservoir volumes from which the amount of exposed reservoir bed can be interpreted for each project alternative as the area outside of the pool for that alternative.

The aesthetic impact of the area of exposed reservoir bed is compared to the average baseline volume of the reservoir on January 1 of the year when treatment would begin. This includes a light use recreation period during winter and spring, and the peak use summer season. . For additional information on peak recreation use at Lake Davis, refer to Recreation Resources, Section 11.

During the last eight water years of record, reservoir operations have resulted in reservoir levels that have exposed about 20 percent of the reservoir bed (about 900 acres) in early summer. This effect has persisted into winter when the reservoir begins to refill from precipitation. Visitors who came to Lake Davis throughout the summer would have observed increasing amounts of exposed reservoir bed, with visitors at the lake on Labor Day weekend observing the highest level of exposed reservoir bed.

For details on annual visitation refer to Recreation Resources (Section 11.1.1.1). With the exception of the Forest Closure period for the application of rotenone for those alternatives using rotenone, the visible exposed shoreline would affect views experienced by recreationists.

Two types of viewers would experience the potential project aesthetic effects. General recreationists to Lake Davis conduct passive recreation such as relaxing and enjoying the scenery. Active recreationists hike, fish, or boat on the lake. Many northern California lakes experience fluctuations in lake levels over the course of a year with changes most evident during the summer and fall months. Recreationists are generally more tolerant of lake level fluctuations if it does not limit or impede their planned activities. The quality of their experience may be reduced if a bare shoreline is visible around the lake. Residents who live near the reservoir, or near Big Grizzly Creek downstream of the reservoir, tend to view the project area as an extension of their home. As such, they may be more sensitive to visual changes to the landscape and length of time related to that change.

9.2.3 No Project/No Action

Under the No Project/No Action alternative, no treatment related reservoir drawdown or neutralization would take place. Therefore, the evaluation criterion of not meeting a VQO for two years would not apply. The reservoir would continue to be operated as it has in previous years, pike management activities would continue, and typical land management activities in the project area would also continue. The No Project/No Action alternative would have no impact on aesthetic resources at KOPs in the project area.

9.2.4 Proposed Project/Proposed Action –15,000 Acre-Feet (Plus Treatment)

9.2.4.1 Drawdown, Refill, and Rotenone Application

The proposed drawdown is scheduled to begin as early as January 1 of the 2007 treatment year with reservoir volume at 45,000 acre-feet. In 27 of the 38 years of record (71 percent), the volume of the reservoir would be at or below 15,000 acre-feet by the Labor Day holiday. At 15,000 acre-feet, the water surface elevation would be approximately 5,749.1 feet. The resulting in 14.5 -foot vertical drop in surface elevation is based on a starting water volume of 45,000 acre-feet. This would result in approximately 2,500 additional acres of reservoir bed that would be visible compared to the average baseline volume of Lake Davis of 45,000 acre-feet. With the exception of the first year the reservoir was filled after construction of the dam was complete, there is no other time in the reservoir's record where the water surface elevation has dropped below 5,756 feet (26,671 acre-feet). Refilling Lake

Davis from 15,000 acre-feet to 45,000 acre-feet, based on the years of record, would require between 5 and 25 months under the most rapid and slower scenarios.

Table 9.2-1 shows the amount of time required for reservoir refill under most rapid- and slower scenarios.

Table 9.2-1 Lake Davis Refill Estimates for Most Rapid- and Slower- Scenarios

Reservoir Refill Scenarios	Proposed Project	Alternatives				
		A	B	C	D	E
Most Rapid	5 Months	5 Months	6 Months	2 Months	0 Months	6 Months
Slower	25 Months	25 Months	38 Months	18 Months	0 Months	41 Months

The KOPs show that existing landscape has a typical level of scenic attractiveness. The vegetation patterns, landscape variety, and order around Lake Davis are very similar to the surrounding landscape. Landscape visibilities at the KOP locations are open and visible at locations where other recreation activities generally take place. No scenic vista points are located in the project area.

Scenic integrity related to the Proposed Project/Proposed Action would, compared to No Project/ No Action, expose a much greater area of reservoir to the viewer, which would be viewed from relatively short (foreground) and middleground distances. This action would make the valued landscape character, the reservoir bed, to appear moderately altered beginning in summer 2007 until the reservoir is refilled, which would not be consistent with meeting the Retention or High Scenic Integrity VQO. Forest Closure 2 during the period of rotenone application would exclude all public access to the vicinity of the project area and would last for three to five weeks. During reservoir treatment, the milky white appearance of the rotenone would be visible; however, this will only last for a couple of days after the treatment at the most. Refilling Lake Davis from 15,000 acre-feet to 45,000 acre-feet, based on the years of record, would require between 5 and 25 months under most rapid and slower scenarios.

Impact A-1: A band of bare shoreline would be visible as foreground and middleground views to recreationists and the general public for up to eight months during the year treatment would occur and 5 to 25 months for refill. The impact on aesthetics would be significant and unavoidable.

Mitigation A-1: There is no feasible mitigation.

9.2.4.2 Neutralization

Impacts related to neutralization options are presented here for the Proposed Project. The options and their impacts remain the same for Alternatives A, B, C, and D.

Option 1 – Pumpback to reservoir- no downstream neutralization

The neutralization method of eliminating flow at the dam outlet and pumping seepage back into the reservoir would require equipment and visual changes to the reservoir near the dam

outlet. No chemical neutralization would be required. During this process, the Forest Closure for treatment would be in effect and the equipment would not be visible to the public. Neutralization Option 1 would not change the VQO since its duration is brief and public access to Lake Davis would be prohibited by the Forest Closure order. After the treatment is completed, the neutralization station will be in place until the reservoir water is neutralized. Any impact would be visible to a low number of viewers for a short duration.

Impact A-2: The Neutralization Option 1 method would have a less than significant impact on aesthetics.

Mitigation A-2: No mitigation is required.

Option 2 – Offstream Neutralization of Minimal Flows

Neutralization Option 2 would close the outlet valve, ceasing flow from the dam outlet for up to 5 days, and then would reduce flow at the dam outlet to 0.2 to 0.5 cfs. This flow would be piped into temporary tanks located below the dam, treated with potassium permanganate, and possibly go through an additional treatment, and returned to the stream. It is anticipated that any purple coloration as a result of the treatment would be most visible where the flow is returned to the stream, and as the concentration decreases the color would dissipate downstream. The number of people that could observe this color change would likely be low. Recreation surveys conducted by the DWR along Big Grizzly Creek indicated about 4,900 hours of recreation occurred in 2001.

Impact A-3: The Neutralization Option 2 would have a less than significant impact on aesthetics.

Mitigation A-3: No mitigation is required.

Neutralization Option 3 – Flow Releases of 1 to 2 cfs with Instream Treatment

Neutralization Option 3 would close the outlet valve, ceasing flow from the dam outlet for up to five days to allow thorough mixing of rotenone in the reservoir. After this period, flow from the dam outlet would resume at one to two cfs and treated with potassium permanganate in the stream. The neutralization process would take place instream in the vicinity of the dam outlet. The neutralization chemicals react to the rotenone in the outflow and result in a purple color that would be visible. It is expected that the purple coloration would be most prominent at the neutralization location and immediately downstream; however, as the concentration decreases downstream, and accretion flows diluted the concentrations, the color would dissipate.

Impact A-4: The Neutralization Option 3 would have a less than significant impact on aesthetics.

Mitigation A-4: No mitigation is required.

Neutralization Option 4 – Flow Releases 3 to 5 cfs with Instream Treatment

Neutralization Option 4 would close the outlet valve, ceasing flows from the dam outlet for up to five days to allow thorough mixing of rotenone in the reservoir. A release flow at the

dam outlet of three to five cfs into the stream would then be implemented. Neutralization activities would be similar to that of neutralization option 3. Instream neutralization would continue until fish are able to survive in Lake Davis.

Impact A-5: The Neutralization Option 4 would have a less than significant impact on aesthetics.

Mitigation A-5: No mitigation is required.

9.2.5 Alternative A – 15,000 Acre-Feet (Plus Treatment Including Powder)

Alternative A is similar to the Proposed Project with the exception of the use of powdered rotenone in the reservoir. Drawdown and refill impacts on aesthetic resources would be the same as the Proposed Project. The resulting 14.5 foot vertical drop in surface elevation would result in approximately 2,500 acres of reservoir bed that would be visible compared to typical late summer conditions.

Scenic integrity related to Alternative A would, compared to No Project/ No Action, expose a much greater area of lake bed to the viewer and would be seen from relatively short distances. The Forest Service VQO would not be met, as discussed under the Proposed Project. Effects on the appearance of reservoir would be the same as discussed under the Proposed Project. 45 days Refilling Lake Davis from 15,000 acre-feet to 45,000 acre-feet, based on the years of record, would require between 5 and 25 months under the most rapid- and slower scenarios, the same as for the Proposed Project.

Impact A-6: A band of bare shoreline would be visible at foreground and middleground distances to recreationists and the general public for up to eight months during the year treatment would occur and for and additional 5 to 25 months during refill. The impact on aesthetics would be significant and unavoidable.

Mitigation A-6: There is no feasible mitigation.

9.2.6 Alternative B – 5,000 Acre-Feet (Plus Treatment)

In 21 of the 38 years of record (55 percent), the volume of the reservoir would be at or below 5,000 acre-feet by the Labor Day holiday. At 5,000 acre-feet, the water surface elevation would be approximately 5,738.0 feet. The resulting 26 foot vertical drop in surface elevation would result in approximately 3,100 acres of reservoir bed that would be visible compared to typical late summer conditions.

Scenic integrity related to Alternative B would expose a much greater area of reservoir bed to the viewer, compared to No Project/ No Action or the Proposed Project/Proposed Action, and would be seen from relatively short distances. This alternative would make the valued landscape character, the lake, appear heavily altered until the lake is refilled, which would not be consistent with the Retention or High Scenic Integrity VQO. Forest Closure 2 for treatment would exclude all public access to the vicinity of the project area and would last three to five weeks. Refilling Lake Davis from 5,000 acre-feet to 45,000 acre-feet, based on the years of record, would require between 6 and 38 months under the most rapid - and slower scenarios (Table 9.2-1). During reservoir treatment, the water would appear milky

white initially; however, this appearance is not expected to persist beyond the Forest Closure period.

Impact A-7: A band of bare shoreline would be visible to recreationists and the general public for eight months during the year treatment would occur and for up to an additional 38 months under the slower scenario for refill. The impact on aesthetics would be significant and unavoidable.

Mitigation A-7: There is no feasible mitigation.

9.2.7 Alternative C – 35,000 Acre-Feet (Plus Treatment)

In 36 of the 38 years of record (95 percent), the volume of the reservoir would be at or below 35,000 acre-feet by the Labor Day holiday. At 35,000 acre-feet, the water surface elevation would be approximately 5,759.7 feet. The resulting 3.9 foot vertical drop in surface elevation would result in approximately 500 acres of reservoir bed that would be visible compared to 45,000 acre-feet. Historic Lake Davis water surface elevation records indicates that in 1977 and 1992 the water surface elevation was at or below 5,759 feet as a result of drought (Appendix D). In the historic record, both the drought years only lasted one year and were followed by higher water surface elevations.

Scenic integrity related to Alternative C would expose a smaller area of reservoir bed to the viewer, compared to the Proposed Project/Proposed Action. This alternative would make the valued landscape character, the reservoir, appear slightly altered until the reservoir is refilled, which would not be consistent with the Retention or High Scenic Integrity VQO. While the scenic integrity would not be consistent with the VQO, the short duration would make the impact less than significant. Forest Closure 2 would exclude all public access to the vicinity of the project area and would last three to five weeks. Refilling Lake Davis from 35,000 to 45,000 acre-feet, based on the years of record, would require between 2and 18 months (Table 9.2-1). During reservoir treatment, the water would appear milky white initially; however, this appearance will only last a couple of days.

Impact A-8: A band of bare shoreline would be visible to recreationists and the general public for up to eight months during the year treatment would occur and for an additional 13 to 24 months during refill. The impact on aesthetics would be significant and unavoidable.

Mitigation A-8: There is no feasible mitigation.

9.2.8 Alternative D – 48,000 Acre-Feet (Plus Treatment)

Relative to 45,000 acre-feet there would not be any exposed reservoir bed, since the reservoir pool level would be at a slightly higher elevation.

Forest Closure 2 for treatment would exclude all public access to the vicinity of the project area and would last three to five weeks. During reservoir treatment, the water would appear milky white initially; however, this appearance is not expected to persist beyond a couple of days.

Impact A-9: A band of bare shoreline would not be visible to recreationists and the general public because the reservoir is above the 45,000 acre-feet starting elevation. There would not be an impact on aesthetics.

Mitigation A-9: No mitigation is required.

9.2.9 Alternative E – Dewater Reservoir and Tributaries (No Chemical Treatment)

In 17 of the 38 years of record (45 percent), the volume of the reservoir would be at effectively zero (107 acre-feet) by the Labor Day holiday. At 107 acre-feet, the water surface elevation would be approximately 5,700.0 feet. The resulting 66-foot vertical drop in surface elevation would result in approximately 3,500 acres of reservoir bed that would be visible compared to typical late summer conditions. With the exception of the first year the reservoir was filled after construction of the dam was complete, there is no other time in the reservoir's record where the water surface elevation has dropped below 5,756 feet.

Scenic integrity related to Alternative E would expose a greater area of lake bed to the viewer, compared to No Project/ No Action or the Proposed Project/Proposed Action. This alternative would make the valued landscape character, the reservoir, appear extremely altered, which would not be consistent with the Retention or High Scenic Integrity VQO. Refilling Lake Davis from zero to 45,000 acre-feet, based on the years of record, would require between 6 and 41 months.

Impact A-10: A band of bare shoreline followed by a completely exposed reservoir bed would be visible from foreground and middleground distances to recreationists and the general public for eight months during the year the reservoir was dewatered would occur for up to an additional 41 months during refill. The impact on aesthetics would be significant and unavoidable.

Mitigation A-10: There is no feasible mitigation.

9.2.10 Cumulative Impacts

9.2.10.1 Analysis Area

The project approach to cumulative impact analysis was discussed in Section 1.8. For aesthetic resources, the geographic boundary of the cumulative impact analysis would include major topographic features such as Smith Peak within the watershed of Lake Davis, and the confluence of Big Grizzly Creek and the Middle Fork Feather River visible to the casual observer. The temporal scope for the cumulative effect analysis will vary depending on the action, since the time duration of effects associated with the Proposed Project and each alternative vary.

9.2.10.2 Projects Considered

A complete list of past, present, and reasonably foreseeable future actions applicable to the Proposed Project/Action and alterations is presented in Section 1.8. Of these projects, there are four past, present, and reasonably foreseeable future actions that have an effect on

aesthetic resources. These are the DWR Northern Pike Containment System at the Outlet of Lake Davis on Big Grizzly Creek, the California Department of Boating and Waterways Boat Ramp Extensions, the Plumas National Forest Recreation Facilities Maintenance and Improvements, and the Grizzly Ranch Development Project. All other actions identified in Section 1.8 are not included in this section and are not considered in this cumulative impact analysis for aesthetics because they do not contribute to the cumulative condition.

The DWR containment project's purpose is to prevent any live life stage of pike from moving through the outlet structure downstream into Big Grizzly Creek, and into the Feather and Sacramento River system, in furtherance of the CALFED Bay-Delta Ecosystem Restoration Program goals. The California Department of Boating and Waterways Boat Ramp Extension Project proposes to extend existing boat ramps at four public boat ramp locations around Lake Davis to improve boating access. The PNF has been implementing a project to conduct maintenance and improve existing recreation facilities around Lake Davis. Each of these three projects is visible from KOPs used to assess this proposed Project. The visible changes from the past, present, and reasonably foreseeable future actions have affected the aesthetic resources in the Project area. Grizzly Ranch is a private development in Plumas County outside of PNF lands and is not visible from State Route 70, a designated scenic byway. As a result of these projects, some of the areas within the Lake Davis watershed are not meeting the Scenic Integrity Objective (SIO)/VQO of Retention.

9.2.10.3 Proposed Project/Proposed Action Cumulative Impacts

As discussed in Section 9.2.4.1, the Proposed Project would have a cumulatively considerable impact on aesthetic resources. Past, present, and reasonably foreseeable actions described above already have impacts on aesthetic resources in the project area. The Proposed Project would contribute to the cumulative impact on aesthetic resources in the project area for up to 25 months from the initiation of drawdown, for the slower-case scenario.

The proposed neutralization methods and alternatives would have less than significant impact on aesthetic resources (Section 9.2.4.1) and would not contribute to the cumulative impacts on aesthetic resources in the project area.

9.2.10.4 Alternative A Cumulative Impacts

As discussed in Section 9.2.5.1, Alternative A would have a cumulatively considerable impact on aesthetic resources. Past, present, and reasonably foreseeable actions described above already have effects on aesthetic resources in the project area. Alternative A would contribute to the cumulative impact on aesthetic resources in the project area for the maximum duration of 25 months from the initiation of drawdown for the slower-case scenario.

9.2.10.5 Alternative B Cumulative Impacts

As discussed in Section 9.2.6.1, Alternative B would have a cumulatively considerable impact on aesthetic resources. Past, present, and reasonably foreseeable actions described above already have effects on aesthetic resources in the project area. Alternative B would

contribute to the cumulative impact on aesthetic resources in the project area for the maximum duration of 38 months from the initiation of drawdown for the slower-case scenario.

9.2.10.6 Alternative C Cumulative Impacts

As discussed in Section 9.2.7.1, Alternative C would not have a cumulatively considerable impact on aesthetic resources. Past, present, and reasonably foreseeable actions described above already have impacts on aesthetic resources in the project area. However, Alternative C would have impact of a relatively short duration of up to 18 months from the initiation of drawdown for the slower-case scenario.

9.2.10.7 Alternative D Cumulative Impacts

As discussed in Section 9.2.8.1, Alternative D would not have a cumulatively considerable impact on aesthetic resources. Past, present, and reasonably foreseeable actions described above already have impacts on aesthetic resources in the project area. However, Alternative D would not contribute to the cumulative effect on aesthetic resources in the project area.

9.2.10.8 Alternative E Cumulative Impacts

As discussed in Section 9.2.9.1, Alternative E would have a cumulatively considerable impact on aesthetic resources. Past, present, and reasonably foreseeable actions described above already have impacts on aesthetic resources in the project area. Alternative E would contribute to the cumulative impact on aesthetic resources in the project area for the maximum duration of 49 months from the initiation of drawdown for the slower-case scenario.

9.2.11 Environmental Impacts Summary

Table 9.2-2 summarizes impacts for aesthetics. The impacts of reservoir drawdown and refill would have significant and unavoidable impacts for the Proposed Project and Alternatives A, B, C, and E. Neutralization options, in contrast, would not have significant effects on aesthetics.

Table 9.2-2 summarizes impacts by alternative and by impact indicators of exposed reservoir bed and appearance of Big Grizzly Creek following neutralization. Regarding the amount of exposed reservoir bed, there would be significant, unavoidable, and adverse impacts associated with the Proposed Project, and Alternatives A, B, C, and E. Alternative D would not have significant impacts because the reservoir would not be drawn down to less than 45,000 acre-feet. For the appearance of Big Grizzly Creek during neutralization activities, there would not be any significant impacts because the number of people that recreate along Big Grizzly Creek is low.

Table 9.2-2. Summary Comparison of Aesthetics Impacts of Alternatives

Affected Resource and Area of Potential Impact	Alternative						
	No Project Compared to Existing Conditions	Proposed Action	A	B	C	D	E
Aesthetics							
1. Amount of exposed reservoir bed observable	N	SU, A	SU, A	SU, A	LS, A	N	SU, A
2. Appearance of Big Grizzly Creek due to neutralization activities	N	LS, A	LS, A	LS, A	LS, A	N	N

Key:

A = Adverse Impact (NEPA)
B = Beneficial Impact (NEPA)
LS = Less than Significant Impact (CEQA)
N = No Impact (CEQA, NEPA)
SM = Significant but Mitigatable Impact (CEQA)
SU = Significant and Unavoidable Impact (CEQA)

9.2.12 Monitoring

No monitoring activities are proposed for aesthetic resources.